

## **REMARKS**

Reconsideration of this application is respectfully requested.

In the Office Action, claims 1-4 and 6-62 are pending. Claims 1-4 and 6-62 stand rejected. In this response, claims 1, 8-9, 12, 21, 28-29, 32, 41, 48-49 and 52 have been amended. No new claims have been added. No claims have been canceled. Thus, claims 1-4 and 6-62, as amended, remain pending.

### ***Examiner Interview***

Applicants acknowledge with appreciation the Examiner's interview with the undersigned representative on November 25, 2008. During the interview, claim limitations including "physical communication link" of independent claim 1 were discussed.

### ***Rejections under 35 U.S.C. § 112, First Paragraph***

Claims 1, 21 and 42 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. In view of the foregoing amendments, applicants respectfully submit that subject matter of claims 1, 21 and 42, as amended, is sufficiently enabled, in light of the description provided in the Specification, especially pages 9-10, as originally filed. Withdrawal of the rejection is respectfully requested.

### ***Rejections under 35 U.S.C. § 103(a)***

Claims 1-3, 6, 9-11, 19-22, 26, 31, and 37-41 stand rejected under 35 U.S.C. §103(a) as being unpatentable over US Patent No. 7,020,881 to Takahashi et al (hereinafter "Takahashi") in view of US Patent No. 5,675,831 to Caputo (hereinafter "Caputo"). However, applicants respectfully submit that applicants' claims 1-3, 6, 9-11, 19-22, 26, 31, and 37-41, as amended, are patentable over the cited references.

Specifically, independent claim 1, as amended, includes the limitation of comparing a response with one or more expected responses stored in a knowledgebase for a query sent over a physical communication link of a communication stack for a connection to a host device to determine a kind of the physical communication link prior to establishing a communication

session for the connection allowing communication with the host device. It is respectfully submitted that neither Takahashi nor Caputo, individually or in combination, teach or suggest the noted limitations.

Rather Takahashi teaches a system control technique for a controller to achieve control by connecting individual multimedia devices regarded as objects with functions and control means to the controller (Takahashi, col. 5, lines 58-67). Takahashi also discloses physical connection configurations required to form bi-directional communication paths between a multimedia controller and each multimedia device such as SCSI bus system, 10Base-T, 10Base-2/10Base-5 or their combinations (Takahashi, col. 6, lines 54 – 67, Figs. 2(a)-2(c)). According to Takahashi, it is necessary to use at least one kind of interface physically common to all the connected devices, such as 10Base-2/10Base-T communication connectors, for processing the communication protocol (TCP/IP) (Takahashi, col. 7, lines 13-30). Additionally, Takahashi states that when a digital VTR (Video Tape Recorder) represented as an object is connected to a LAN, a system director object recognizes the connection to the digital VTR and sends a device ID to the digital VTR (Takahashi, col. 13, lines 40-47, Fig. 18). Takahashi further discloses an interface control unit includes an interface controller for controlling communication at a physical or logical low level and a device connection/disconnection signal processing means for processing a device connection signal indicative of a connection of any of the multimedia devices detected by the interface controller or a device disconnection signal indicative of a disconnection of any of the multimedia devices detected by the interface controller (Takahashi, col. 36, lines 9-16). In addition, Takahashi discloses processing to be executed to check the states of connected devices to determine whether a communication time has reach a time-out value, to determine whether an acknowledgement message has been received from each of the multimedia devices, and to check whether a multimedia device is already stored on a management table (Takahashi, col. 38, lines 25-50). Takahashi also describes determining a particular device is not connected or in an abnormal state (Takahashi, col. 42, lines 60-67). In Takahashi, a relay checks output a line connection detecting circuit to detect whether a multimedia device has been connected to a port (Takahashi, col. 44, lines 51-57). Takahashi also describes a multimedia device includes cable connectors serving as cable unlocking/cable disconnection detecting switches to transmit cable disconnection detection signal to a line connection detection circuit

(Takahashi, col. 47, lines 25-37). Thus, Takahashi configures physical connections to multimedia devices before connecting the devices and detects connection/disconnection status afterwards. However, nowhere does Takahashi disclose or suggest comparing a response with one or more expected responses stored in a knowledgebase for a query sent over a physical communication link of a communication stack for a connection to a host device to determine a kind of the physical communication link prior to establishing a communication session.

Caputo, however, provides a dynamic link library which issues queries over a communication port to determine if a modem is connected (to the port) and to detect a type of a connected modem (Caputo, col. 10, line 29 – col. 11, line 13). Caputo also describes levels for controlling a modem, including a control and communication application programming interface to provides a device independent interface to a modem at the top level, a modem driver to translate high level commands to commands for a specific type of modem at a lower level, and a port driver to translate modem data and commands at a lower (an even lower) level (Caputo, col. 3, lines 10-20). In Caputo, the process of physically transferring commands and data to a modem which depends on the modem couples to a computer through a PCMCIA port, an RS 232 port or a parallel port, etc (Caputo, col. 4, lines 28-48). Additionally, Caputo also discloses sending queries at different baud rates over a communication port to detect a modem and, if the modem is detected, sending additional queries to match a response to a list of device IDs (Caputo, col. 12, line 55 – col. 13, line 15). Therefore, Caputo attempts to establish a device identifier for a modem device detected over a low level port by matching a response with a list of device IDs for a query sent over the low level port. Apparently, there is no need for Caputo to perform a match for determining a kind of physical link. Caputo does not disclose or suggest comparing a response with one or more expected responses stored in a knowledgebase for a query sent over a physical communication link of a communication stack for a connection to a host device to determine a kind of the physical communication link prior to establishing a communication session for the connection allowing communication with the host device.

Therefore, even in combination, Takahashi and Caputo do not teach or suggest "comparing a response with one or more expected responses stored in a knowledgebase for a query sent over a physical communication link of a communication stack for a connection to a host device to determine a kind of the physical communication link prior to establishing a

communication session for the connection allowing communication with the host device" and performing certain steps based on the physical communication link type, as discussed above.

Moreover, the Office Action states that "Caputo teaches comparing a response with one or more expected responses stored in a knowledgebase to determine a type of a physical communication link to the particular host device for a query sent over the physical communication link prior to establishing a communication session allowing communication between the digital camera and the particular host device" (See col. 10, lines 30-60 and col. 12 lines 45-65). It appears the Office Action alleges a physical communication link is understood as a modem device. Applicants respectfully disagree with the Office Action's apparent allegation. It is respectfully submitted that one with ordinary skill in the art would not recognize a physical communication link as a modem device based on Caputo's teaching.

Further, Takahashi relates to system control of multimedia devices capable of handling various kinds of information such as texts, sound, still images and moving images (Takahashi, col. 1, lines 20-24). Caputo, on the other hand, is related to a modem interface in a computer system. Clearly, modem interface and multimedia device control belong to completely different arts requiring quite differing approaches. It is respectfully submitted that one with ordinary skill in the art would not, based on the teachings of Takahashi and Caputo, combine the references with each other, because such combination lacks reasonable expectation of success. Any suggestion of such combination can only be based on impermissible hindsight of applicants' own disclosure.

As such, the references, considered as a whole, do not suggest the desirability and thus the obviousness of making the combination. It would be impermissible hindsight to combine Takahashi and Caputo based on applicants' own disclosure.

Therefore, in view of foregoing remarks, it is respectfully submitted that independent claim 1, as amended, is patentable over Takahashi and Caputo. Given that dependent claims 3, 6, 9, 11 and 19-20 depend from independent claim 1, as amended, and incorporate the above noted limitations, applicants respectfully submit that dependent claims 3, 6, 9-11 and 19-20 are not obvious over the cited reference for at least the reasons enumerated above with respect to claim 1, as amended.

Independent claims 21 and 41, as amended, recite similar limitations as noted above. Therefore, for at least the reasons similar to those discussed above, it is respectfully submitted that independent claims 21, 41, as amended, and dependent claims 22, 26, 31 and 37-40 are patentable over Takahashi and Caputo.

Claims 4 and 17-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi in view of Caputo, further in view of US Patent No. 6,628,325 to Steinberg et al. (hereinafter, "Steinberg"). However, applicants respectfully submit that applicants' claims 4 and 17-18 are patentable over the cited references.

Claims 4 and 17-18 depend from independent claim 1 and therefore incorporate the limitations of claim 1. It is respectfully submitted that the addition of Steinberg does not remedy the shortcomings of Caputo and Takahashi discussed above.

Steinberg teaches a communication device for interconnecting a digital camera to a communication network for downloading data to a remote computer (Steinberg, col. 2, lines 40-42). Steinberg teaches that the device has a network communication port for establishing communication with a network and a camera communication port, such as serial, parallel, SCSI, USB or IrDA-port, for connection to a digital camera (Steinberg, col. 2, lines 42- 48). Steinberg teaches the communication device programmed to query the camera communication port to determine if a camera is connected (Steinberg, col. 10, lines 61-64). Steinberg teaches the communication device sending instructions, including downloading an image data, to a connected camera (Steinberg, col. 11, lines 12-13, Fig. 7). Steinberg teaches the communication device checks the output (network communication) port to determine if a connection is made to a network and if the destination is connected and ready (Steinberg, col. 11, lines 24-29). However, nowhere does Steinberg disclose or suggest comparing a response with one or more expected responses stored in a knowledgebase for a query sent over a physical communication link to determine a kind of the physical communication link prior to establishing a communication session.

Thus, none of the references alone or in combination teach or suggest the limitation of "comparing a response with one or more expected responses stored in a knowledgebase for a query sent over a physical communication link of a communication stack for a connection to a host device to determine a kind of the physical communication link prior to establishing a

communication session for the connection allowing communication with the host device," and performing certain steps based on the physical communication link type as recited in claim 1, as amended. Since claims 4 and 17-18 depend from independent claim 1, as amended, for at least the reasons similar to those discussed above, it is respectfully submitted that claims 4 and 17-18 are patentable over the cited references.

Claims 7-8 and 16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi in view of Caputo, further in view of US Publication No. 2003/0142215 to Ward et al. (hereinafter "Ward"). However, applicants respectfully submit that applicants' claims 7-8 and 16 are patentable over the cited references.

Claims 7-8 and 16 depend from independent claim 1, as amended, and therefore incorporate the limitations of claim 1, as amended. It is respectfully submitted that Ward does not remedy the shortcomings of Takahashi and Caputo.

Ward teaches steps to transmit images using a network configuration file generated at a host computer and downloaded to a digital camera (Ward, [0004], [0014]). Ward also discloses if there is a request to send an image, the user ensures a camera is connected to the appropriate service (wired telephone line, cellular phone, kiosk, etc.) and the camera uses an appropriate network configuration file to establish communications with the service (Ward, [0014], Fig. 2). Ward describes selecting a service from a menu of online services or names of ISP (Ward, [0015]), such as Cellular, CDPD, Phone, Satellite, Ethernet, Kiosk and ISDN (Ward, Fig. 2). Ward further states a camera reads connection parameters from a network configuration file, dial a phone and establishes a connection to a service; transmits the user's account name and password to the service; and transmits images to the destination service using FTP (Ward, [0016]-[0018]). However, nowhere does Ward disclose or suggest comparing a response with one or more expected responses stored in a knowledgebase for a query sent over a physical communication link to determine a kind of the physical communication link prior to establishing a communication session.

Therefore, the references alone or in combination do not teach or suggest the above noted limitations of claim 1, as amended. Since claims 7-8 and 16 depend from independent claim 1, as amended, for at least the reasons similar to those discussed above, it is respectfully submitted that claims 7-8 and 16 are patentable over the cited references.

Claims 13-15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi in view of Caputo, further in view of US Patent No. 5,737,491 to Allen et al. (hereinafter “Allen”). However, applicants respectfully submit that applicants’ claims 13-15 are patentable over the cited references.

Claims 13-15 depend from independent claim 1, as amended, and therefore incorporate the limitations of claim 1, as amended. It is respectfully submitted that Takahashi, Caputo, for the reasons similar to those discussed above, or Allen, individually or in combination, fail to disclose or suggestion the above noted limitations of claim 1.

Allen teaches a system for digital images capture and transmission, including a digital camera, a transceiver in the digital camera for transmitting a digital image file to a remote image fulfillment server, the digital image file having associated information for controlling the image fulfillment server. The image fulfillment server includes a transceiver for receiving the digital image file and control signals (Allen, col. 1, lines 35-52, Fig. 1). Allen teaches the fulfillment server reads the image file header including I.D. of the camera, command flags and the digital voice data. Command flags that are set indicate effects of action (Allen, col. 4, lines 55-60). Allen teaches the digitized voice data stored in the file header is recognized by comparing to a text code book, and when a match is made, the commands are executed (Allen, col. 5, lines 14-17). However, Allen fails to disclose or suggest comparing a response with one or more expected responses stored in a knowledgebase for a query sent over a physical communication link to determine a kind of the physical communication link prior to establishing a communication session.

Thus, none of the references alone or in combination teach or suggest the above noted limitations of claim 1, as amended. Since claims 13-15 depend from independent claim 1, as amended, for at least the reasons similar to those discussed above, it is respectfully submitted that claims 13-15 are patentable over the cited references.

Claims 23-25, 29-30 and 32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi in view of Caputo, further in view Steinberg. However, applicants respectfully submit that applicants’ claims 23-25, 29-30 and 32 are patentable over the cited references.

Claims 23-25, 29-30 and 32 depend from independent claim 21, as amended, and therefore incorporate the limitations of claim 21, as amended. It is respectfully submitted that Takahashi, Caputo, or Stenberg, for the reasons similar to those discussed above, individually or in combination, fail to disclose or suggestion the above noted limitations of claim 21. Thus, applicants respectfully submit that claims 23-25, 29-30 and 32 are patentable over the cited references.

Claims 27-28 and 36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi in view of Caputo, further in view Ward. However, applicants respectfully submit that applicants' claims 27-28 and 36 are patentable over the cited references.

Claims 27-28 and 36 depend from independent claim 21, as amended, and therefore incorporate the limitations of claim 21, as amended. It is respectfully submitted that Takahashi, Caputo, or Ward, for the reasons similar to those discussed above, individually or in combination, fail to disclose or suggestion the above noted limitations of claim 21, as amended. Thus, applicants respectfully submit that claims 27-28 and 36 are patentable over the cited references.

Claims 33-35 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi in view of Caputo, further in view Allen. However, applicants respectfully submit that applicants' claims 33-35 are patentable over the cited references.

Claims 33-35 depend from independent claim 21, as amended, and therefore incorporate the limitations of claim 21, as amended. It is respectfully submitted that Takahashi, Caputo, or Allen, for the reasons similar to those discussed above, individually or in combination, fail to disclose or suggestion the above noted limitations of claim 21, as amended. Thus, applicants respectfully submit that claims 33-35 are patentable over the cited references.

Claims 42-59 stand rejected as being unpatentable over the cited references for the rejection of claims 6-20. However, applicants respectfully submit that applicants' claims 42-59 are patentable over the cited references for claim 6-20.

Claims 42-59 depend from independent claim 41, as amended, and therefore incorporate the limitations of claim 41, as amended. For the similar reasons as discussed above, it is respectfully claims 42-59 are patentable over the cited references.



Claim 60 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi in view of Caputo further in view of US Patent No. 6,529,969 to Inoue (hereinafter "Inoue"). However, applicants respectfully submit that applicants' claim 60 is patentable over the cited references.

Claim 60 depends on claim 41, as amended, which includes the limitation of an identification module for comparing a response with one or more expected responses stored in a knowledgebase for a query sent over a physical communication link to determine a kind of the physical communication link prior to establishing a communication session. It is respectfully submitted that Takahashi, Caputo or Inoue, individually or in combination, fail to disclose or suggestion the above noted limitation.

As discussed above, neither Takahashi nor Caputo, teach or suggest an identification module for comparing a response with one or more expected responses stored in a knowledgebase for a query sent over a physical communication link to determine a kind of the physical communication link prior to establishing a communication session. Inoue does not remedy this shortcoming of the references.

Rather, Inoue provides a reception apparatus and a reception method by which selection of an audio source through an IEEE 1394 bus can be performed by simple and plain operation (Inoue, col. 2, lines 46-50). Inoue teaches a point to point-connection as a form of connection wherein a relationship between a transmission apparatus and a reception apparatus is specified as a plug and data transmission is performed between the transmission apparatus and the reception apparatus using a common channel (Inoue, col. 17, lines 8-12). Inoue also describes the plug connection is established with a Plug control Register provided in an address space in the apparatus (Inoue, col. 17, lines 32-34). However, nowhere does Inoue disclose or suggest determining a kind of physical communication link.

Therefore, it is respectfully submitted that independent claim 41, as amended, and therefore its dependent claim 60, is patentable over Takahashi, Caputo and Inoue.

Claim 61 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi in view of Caputo, further in view of US Patent No. 6,353,848 to Morris et al. (hereinafter "Morris"). However, applicants respectfully submit that applicants' claim 61 are patentable over the cited references.

Claims 61 depends from independent claim 41, as amended, which includes the limitation of an identification module for comparing a response with one or more expected responses stored in a knowledgebase for a query sent over a physical communication link to determine a kind of the physical communication link prior to establishing a communication session. It is respectfully submitted that Takahashi, Caputo or Morris, individually or in combination, do not teach or suggest the noted limitation of claim 41, as amended.

As discussed above, neither Takahashi nor Caputo, teach or suggest an identification module for comparing a response with one or more expected responses stored in a knowledgebase for a query sent over a physical communication link to determine a kind of the physical communication link prior to establishing a communication session. Morris does not remedy this shortcoming of the references.

Rather, Morris provides an executable program for accessing a digital camera via a communication network using a Web server on a server computer system and a Web browser on a client computer system that are communicatively coupled via the Internet. (Morris, col. 4, lines 44-50). Morris teaches the camera can be communicatively coupled to the server computer system via the Internet using a dial-up connection to ISP via a POTS line (Morris, col. 7, lines 37-40). Morris teaches the camera coupled to the server computer system via communication line of LAN (Morris, col. 8, lines 1-3). Morris teaches the camera coupled to the server computer system via an input/output port (Morris, col. 8, lines 9-11). Morris teaches an executable program running on a web server receives and accepts a connection request from a camera; receives and reads registration information from the camera; and determines if the camera is supported by the server (Morris, Fig. 7, col. 11, lines 15-40). Morris teaches a camera connects to an executable program and transmits identification name and authentication information electronically to the executable program (Morris, col. 15, lines 10-19). However, Morris does not disclose or suggest determining a kind of physical communication link.

Therefore, it is respectfully submitted that independent claim 41, as amended, and therefore its dependent claim 61, is patentable over Takahshi, Caputo and Morris.

Claim 62 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi in view of Caputo, further in view of US Patent No. 6,606,669 to Nakagiri.

However, applicants respectfully submit that applicants' claim 62 is patentable over the cited references.

Claim 62 depends from and includes all the limitations of independent claim 41, as amended. It is respectfully submitted that Takahashi, Caputo, for the reasons similar to those discussed above, or Nakagiri, individually or in combination, do not teach or suggest the above noted limitations of claim 41, as amended.

Nakagiri provides an information processing apparatus constructed by a host computer and a peripheral device connected to the host computer through a bidirectional interface and which inputs and outputs data between the host computer and the peripheral device through a device driver that corresponds to the peripheral device is loaded in the OS of the host computer (Nakagiri, col. 2, lines 24-31). Nakagiri teaches a printer reads out data transmitted through a bidirectional interface and proceeds by transmitting a printer identification data, transmitting a printer driver, or executing ordinary printing, according to a check made on the data (Nakagiri, col. 5, lines 42-65, Fig. 3). Nakagiri describes the data could be a port identification data request, a printer driver transmission command, or an ordinary print control command (Nakagiri, col. 5, lines 61-65). Nakagiri discloses a relative simple format, like a predetermined escape sequence, is used for the identification data request command (Nakagiri, col. 5, lines 44-53). However, Nakagiri fails to disclose or suggest an identification module which determines a kind of physical communication link.

Therefore, claim 41, as amended, and thus its dependent claim 62, is patentable over Takahashi, Caputo and Nakagiri.

In view of the foregoing amendments and remarks, applicants respectfully submit the applicable rejections and objections have been overcome. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call the undersigned attorney at (408) 720-8300.

Please charge Deposit Account No. 02-2666 for any shortage of fees in connection with this response.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

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